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ABSTRACT

This study investigated the effect of the language in which a test is administered when assessing second language reading comprehension. Subjects were college students (ages 18-21) enrolled in first-semester (n=27) and third-semester (n=19) Spanish classes. Each group was given a different passage in Spanish to read. Two sets of questions were distributed. The first was in Spanish and requested answers in Spanish and English. The second, distributed after the first was collected, was in English and requested answers in English and Spanish. The passages and questions are appended. Results suggest that students' errors may be caused by factors other than reading comprehension of the passage, particularly confusion created by the wording of a question or inability to create responses in the target language. It is concluded that use of the target language for testing decreases the test validity. Improvements in research design are suggested. (MSE)

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ED 390 288

Should Reading Comprehension be Tested in the Target in the Native Language? A Pilot Study

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This paper reports on the results of a pilot study conducted to determine the effect exerted by the language chosen when testing reading comprehension. College students enrolled in first and third semester Spanish participated in this study. The materials used consisted of a reading comprehension paragraph followed successively by a set of Spanish questions first and then a set of English questions. The subjects were asked to respond to each set of questions in both English and Spanish. The results suggest that the use of the target language may hamper reading comprehension-test validity. This paper provides an account of the error percentages originated by three factors: 1) lack of comprehension of questions worded in Spanish, 2) lack of ability to respond in Spanish, and 3) the mere lack of passage comprehension.

Introduction

The concept of validity constitutes one of the underpinnings of the theory and practice of test making (Messick, 1988). It provides a ruler against which testing procedures and materials can be measured to determine whether or not a given test is in fact measuring what it is supposed to measure. The present work is concerned with construct validity, in particular with construct validity of L2 reading comprehension tests. According to Hughes (1989, p. 26), "a test, part of a test, or testing technique is said to have construct validity if it can be demonstrated that it measures just the ability which it is supposed to measure". In the case of L2 reading comprehension tests, both type of task (Wolf, 1993; Shohamy, 1984) and language of assessment (L1 as opposed to L2 and viceversa)

(Wolf, 1993b; Lee, 1990, 1987; Hock & Poh, 1979) have been pointed out as sources that may hinder construct validity. The language chosen in L2 reading comprehension tests has been the focus of attention of only a few studies. These works suggest that, all across the different levels of L2 reading competence, the language chosen to word comprehension questions and to answer open-ended questions may indeed give way to misleading test results. Moreover, whether it is L1 or L2, how language is used in wording questions may hinder construct validity of a reading comprehension test as well. The wording of a question may reveal the answer by making it easy for the test-taker to match words in the questions to words in the passage when the questions are formulated in L2. Questions in L1 may also present the same problem when cognates or semicognates are used, or when a reference to a proper noun or date makes it obvious where the answer is located in the passage. As for test-takers, they may find some of the test items impossible to answer due to their difficulty to understand L2 wording, and at times they will find it very challenging to answer a question due to the lack of active vocabulary and morpho-syntactic structures (Hock & Poh, 1979; Wolf, 1993b; Stroebe, 1930). Finally, as far as the test grader is concerned, answers in L2 may turn out so poorly constructed that how to grade them will constitute a real dilemma (Stroebe, 1930).

The preoccupation for lack of construct validity stemming from the language chosen in reading comprehension tests does not seem yet to have attracted enough attention among publishers or language teachers. Therefore one

of the objectives of the present pilot study is to provide more evidence to stir up and stimulate discussion of an issue that is still far from being resolved.

Testing reading in a foreign language is a controversial issue. Should reading comprehension be tested in the native language or the target language? Educators will argue in favor of the latter because they feel that students should have as much exposure to the target language as possible. However, by using the target language for the entire testing process leaves doubt as to whether the students are actually comprehending the passage; or whether the mere writing in the target language hampers conveyance of the message. The outcome may be the result of a faulty test design and not the result of faulty reading comprehension. Those who argue for a target language-only test claim that interference may occur if the student is given a test in the target language and required to produce responses in the native language (L. Hart-González, personal communication, 1994). The purpose of this pilot study is to explore the outcomes triggered by different reading-comprehension-test conditions. The objective of the study is twofold. First, it was designed to test four hypotheses: How reading comprehension is affected when: a.) the question and answer are in the target language, i.e., Spanish; b.) the question is in the target language and the answer is in the native language, i.e., English; c.) the question and answer are in the native language; and d.) the question is in the native language and the answer is in the target language. Second, the study was designed to determine whether the instruments to test the hypotheses were valid, i.e., the types of questions and the

level of difficulty of the passage.

Methods

Subjects

Two groups of undergraduate students from George Mason University, in Virginia, were selected to participate: 27 were enrolled in first semester college Spanish, and 19 in third semester college Spanish. The ages of the subjects ranged between eighteen and twenty-one.

Materials and Procedures

Each group of students was given a passage to read that varied in length: the first semester passage was 179 words, and the third semester passage was 214 words. Two sets of questions for each passage were distributed to all students. The first set was in Spanish requesting answers in both Spanish and English. The second set was in English requesting answers in English and Spanish. This set, however, was distributed only after the first set was collected to avoid copying or looking back at responses. The first semester and the third semester students were asked to respond to eight and nine questions respectively. Below each question sufficient space was provided for students to write their answers. The test was administered during a regularly scheduled class period of approximately fifty minutes. The data was collected during the Spring semester of 1994. See Appendices A-F for the passages and questions.

Data Analysis

1. Questions-in-Spanish analysis

The comprehension level of questions formulated in Spanish was examined to determine what questions presented difficulties. Whenever a Spanish question was not answered or was answered incorrectly, whereas its English counterpart was answered correctly, it was inferred that the subject could not answer the question because she or he did not understand it. Non-understood questions were classified by the number assigned in the question sheet for reading comprehension and by the number of subjects who failed to understand a given question.

2. Answers-in-Spanish analysis

Spanish answers were classified according to the number assigned to the questions to which they responded. Answers were further categorized into incorrect answers triggered by the subject's lack of target language writing skills, and incorrect answers triggered by faulty reading comprehension of the passage.

To determine the cause of subjects' incorrect answers, English and Spanish responses were compared. An answer was considered incorrect if it did not address the question or if the answer was not comprehensible. Blanks or incorrect answers triggered by a misunderstood question were left out in this phase since they were examined under Questions-in-Spanish Analysis.

Results

First semester reading comprehension test

1. Questions in Spanish

It was observed that out of a total of eight questions, four (50%) questions were not understood by at least one subject. A total of nine (33%) subjects did not understand at least one of the questions. The mean percentage of non-understood questions was 4% (see Table 1 and graph).

2. Answers in Spanish

Six (75%) answers out of eight were not correctly answered at least once due to the lack of writing skills in Spanish, and six (75%) answers out of eight were not answered correctly at least once as a result of faulty reading comprehension. A total of 16 (59%) subjects were not able to answer at least one question, one (3%) subject was not able to answer two (22%) questions, and two (7%) subjects were not able to answer three (33%) questions as a result of insufficient writing skills. The mean percentage of erroneous answers generated by lack of writing skills was 13.4% (see graph). The breakdown of erroneous responses generated by limited reading comprehension is as follows: A total of nine (33 %) subjects did not respond correctly to at least one (3%) question; and three (11%) did not respond correctly to at least two (22%) questions. The mean number of erroneous answers due to the lack of reading comprehension was 7.9% (see Table 2 and graph).

Third semester reading comprehension test

1. Questions in Spanish

A total of six (66%) questions out of nine were not understood by at least one subject. A total of eight (42%) subjects did not understand at least one of the questions, one (five percent) subject did not understand five (55%) questions, one (five percent) subject did not understand three (33%) questions, and one (5%) subject did not understand two (22%) questions. The mean percentage of non-understood questions was 8.7% (see Table 1 and graph).

2. Answers in Spanish

Seven (77%) answers out of nine were not correctly answered at least once due to the lack of writing skills in Spanish, and nine (100%) answers out of nine were not answered correctly at least once as a result of faulty reading comprehension. A total of six (31%) subjects were not able to answer at least one (11%) question, one (5%) subject was not able to answer two (22%) questions, and two (10%) did not answer three (33%) questions as a result of limited writing skills. The mean percentage of erroneous answers generated by lack of writing skills was 8.1% (see graph). The breakdown of erroneous responses generated by limited reading comprehension is as follows: A total of four (21%) subjects did not respond correctly to at least one (11%) question; five (26%) subjects did not respond correctly to two (22%) questions; four (21%) subjects did not answer correctly to three (33%) questions; one (11%) subject did not answer correctly to four (44%) questions, two (10%) did not answer correctly to five (55%)

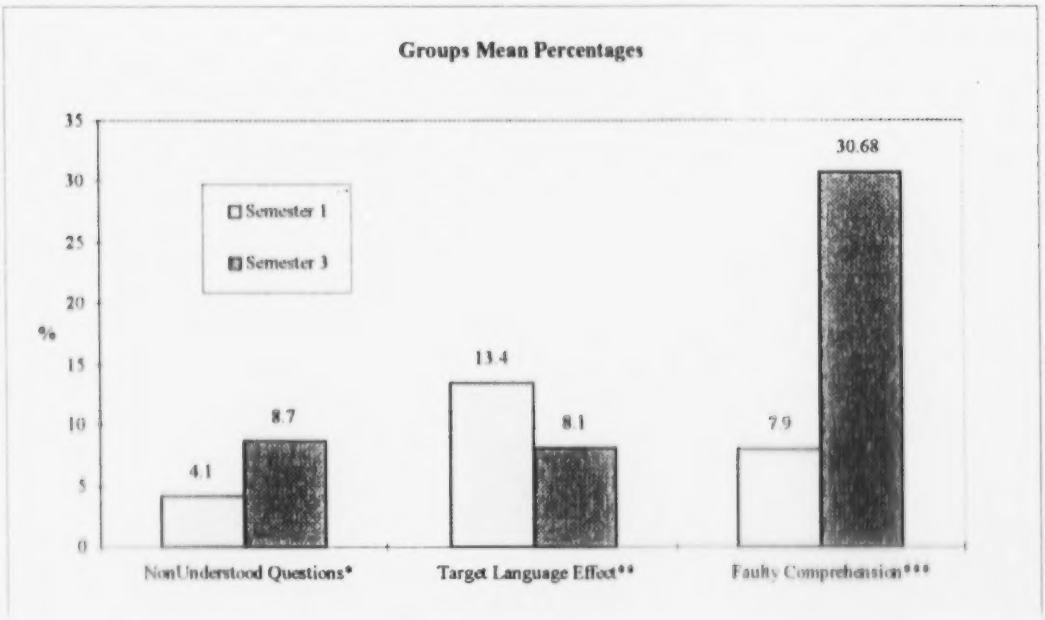
questions; and two (10%) subjects did not answer correctly to six (66%) questions. The mean number of erroneous answers due to lack of reading comprehension was 30.68% (see Table 2 and graph).

Table 1
Questions in Spanish

	% of questions not understood by at least one subject.	% of subjects who did not understand at least one of the questions.	Group mean % of not understood questions.
First Semester	50%	33%	4%
Third Semester	66%	42%	8.7%

Table 2
Answers in Spanish

	Lack of writing skills triggers erroneous answers to at least one of the questions in the set.	Lack of passage comprehension triggers erroneous answers to at least one of the questions in the set.	% of subjects who were not able to answer at least one question for lack of writing skills.	Group mean % of erroneous answers generated by lack of writing skills.	% of subjects who did not respond at least once for lack of passage comprehension.	Group mean % of erroneous answers triggered by lack of passage comprehension.
First Semester	75%	75%	59%	13.4%	33%	7.9%
Third Semester	77%	100%	31%	8.1%	21%	30.68%



*Percentage of non-understood-questions occurrences in the group.
**Percentage of erroneous answers yielded by lack of target-language writing skills.
***Percentage of erroneous answers yielded by lack of comprehension of the reading passage.

Discussion

The questions formulated in the target language were a source of error in the responses of both first and third semester Spanish students. Likewise, their answers in the target language were an additional source of error. However, errors generated by the lack of writing skills were more frequent in the first semester group than in the third semester. The third semester group performed better as a result of both more experience with the language and with the management of strategies to use the very passage to shape their answers.

Apart from such observations of the lack of writing skills and the incomprehensibility of the questions in the target language, other observations were made that suggested inaccuracies in the students' comprehension of the passage.

The first semester group responded in the target language to questions six (Q6) and eight (Q8), (see appendices), without discriminating how much of the sentence from the passage was needed to respond. This was obvious when 18 subjects ended their responses to Q6 *Why does Luis travel constantly?*, and Q8 *What is a tour guide?*, with *y además* 'and also'. This indicates that the students copied directly from the passage without comprehending what they were writing. The students, through vocabulary from the question, were able to locate the answer. However, their response proves that comprehension was not fully obtained.

The third semester group indicated on occasion literal translation. With the responses to Q4, one example of this was found by two of the subjects. In their first set, i.e., Spanish Question: *¿Dónde conoció Martín a Rosario?*, both of these subjects responded in English *in the hospital*. The actual passage reads in Spanish: *en el hospital*. However when these same students were given the second set, i.e., English Question: *Where did Martín meet Rosario?*, each responded *at the hospital*. It appears that the question in the target language may not have been fully understood, but it provided enough vocabulary from the passage for the students to search for the response. The students were able to locate the answer in the passage through the Spanish question's *conoció* and literally translated their response, which changes when given the English question.

In comparing the proportion of first and third semester incorrect answers generated by faulty comprehension of the passage, observations show more errors in the third semester group than in the first semester group. To determine whether the discrepancy of results was due to excessive passage difficulty or easiness, a distribution analysis was conducted on the frequency of incorrect answers generated by lack of reading comprehension. The results showed that the distribution of incorrect answers was normal in the third semester group, which shows that the difficulty level of the passage was fair; however the distribution of incorrect answers in the first semester group was skewed to the right, which means that the passage was very easy. This result, although unexpected, shows soundly

that students might understand the passage and still display a performance inconsistent with their level of reading comprehension.

Some of the answers, especially with those where the question was in English, were left blank because of possible emotional factors, or were memorized from what was written on the test with the Spanish question. For example in the third semester group, one of the subject's response to Q8 was *Una persona de vender, porque vender los productos de su compañía,* which is word for word the exact same answer provided on the English question test; since the English question test was identical to that of the Spanish, this is not unlikely. Although the Spanish question test was collected before administering the English set of questions, some subjects seemed to have been able to remember their responses.

Two emotional levels, boredom and anxiety, were considered whenever a student would respond correctly to the first set of questions (the most challenging since they were formulated in Spanish), and would leave the same question blank or partially blank in the second set. Boredom may have been the outcome of having to carry out a nearly similar task twice. The students may have felt discouraged to perform their best when they realized that the second set of questions did not represent a challenge. Test anxiety may have been responsible for the cases of students who understood a question in Spanish and showed a lack of passage comprehension in their answer to the question formulated in Spanish, but showed comprehension in the answer to the question formulated in English and vice versa.

Conclusion

The results of this study show that students' errors on a reading comprehension test may be caused by factors other than reading comprehension of the passage. In combining error percentages it is apparent that 68% of the errors of the first semester group and 35% from the third semester group stemmed from the combined factors of not understanding the wording of the questions and from not being able to word the answers in Spanish. Moreover, observations show that students may be able to answer correctly in Spanish without having full understanding of the passage, as explained with examples under the section of *Discussion*. Some students develop strategies to locate the lines where the answer may likely be by detecting key words from the question. This is especially true of third semester students, who have had more experience with the language and language tests thus more time to develop certain test strategies. However, in this study, this phenomenon also occurred with the first semester students, although the result was still an incorrect answer, as demonstrated in the *Discussion* section.

It is apparent in these results that the use of Spanish to assess reading comprehension decreases the test validity since students give the impression they do understand when in fact they do not and vice versa. This pilot study has clearly illustrated that other means of testing reading comprehension may be considered to ensure test validity.

Should this study be replicated on a larger scale, several changes on the research design should be implemented:

1.) The passage for the first semester group should increase its level of difficulty by including a wider range of vocabulary, more complex sentences, and more words. The reading comprehension questions should not include key words from the passage that might cue students to the location of the answer, resulting in copying the passage.

2.) To control for boredom and frustration, the experiment should be set up so that there is no repetition of the task, i.e., Spanish questions with Spanish and English responses, and English questions with English and Spanish responses. To avoid this, the test would be administered to four different groups per level. The scheme to control for language variable would be as follows:

	Group A	Group B	Group C	Group D
Question	Spanish	English	Spanish	English
Answer	Spanish	English	English	Spanish

All levels should follow the same scheme.

3.) A sociolinguistic questionnaire should be set up to include questions dealing with background language training, interest in the subject, and anxiety. This instrument would allow to control for previous knowledge effect, motivation and anxiety.

The replication of this study, including the changes discussed in this section, may enlighten educators to search for new methods of assessing reading comprehension in foreign languages.

Acknowledgments

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Notes

1. This passage is an adapted version of a passage in Van Patten et al. (1991, 19)

2. This passage is an adapted version of a passage in Van Patten et al. (1991, 101)

References

Hock, T. S. & Poh, L. C. (1979). The performance of a group of Malay-medium students in an English reading comprehension test. *Journal of language, teaching and research in Southeast Asia, 10*, 81-89.

Hughes, R. (1989). *Testing for language teachers.* New York: Cambridge University Press.

Lee, J. F. (1990). A review of empirical comparisons of non-native reading behaviors across stages of language development. In H. Burmeister & P. L. Rounds (Eds.), *Variability in Second Language Acquisition, Vol. 2* (pp. 453-472). Eugene, OR: University of Oregon Press.

Lee, J. F. & Ballman, T. L. (1987). FL learners' ability to recall and rate the important ideas of an expository text. In B. V. Patten, T. Dvorak, & J. Lee (Eds.), *Foreign language learning: a research perspective* (pp. 108-118). Cambridge, MA: Newbury House.

Messick, S. (1988). The once and future issues of validity: assessing the meaning and consequences of measurement. In H. Wainer & H. Braun (Eds.), *Test validity* (pp. 33-35). Hillsdale, NJ: Lawrence Erlbaum.

Shohamy, E. (1984). Does the testing method make a difference? The case of reading comprehension. *Language Testing, 1*, 147-170.

Stroebe, L. L. (1930). Reading Comprehension Tests. *The German Quarterly 3*, 79-94.

VanPatten, B. *et al.* (1991). *Destinos. Workbook/Study Guide I.* New York, NY: McGraw-Hill.

Wolf, D. F. (1993a). Issues in reading comprehension assessment: Implications for the development of research instruments and classroom tests. *Foreign Language Annals 26, No 3*, 322-31.

Wolf, D. F. (1993b). A comparison of assessment tasks used to measure FL reading comprehension. *Modern Language Journal 77*, 473-489.

Appendix A

First semester passage

La familia Ramírez[1]

Elena Ramírez y Luis son los padres de Miguel y Jaime. Elena Ramírez es la madre de Miguel y Jaime. Ella no trabaja fuera de casa porque con dos hijos Elena tiene ya mucho trabajo. Jaime, especialmente, le da muchos problemas.

Jaime es un niño con mucha energía. Es el menor de los dos hijos y le gusta ser el centro de atención. No es muy buen estudiante y Elena tiene que hablar con frecuencia con su profesor y el director de su escuela. Este año Jaime tiene muchas dificultades en la clase de matemáticas.

Al contrario de Jaime, Miguel es un hijo modelo y Elena está muy orgullosa de él. Miguel es inteligente, estudioso y sus profesores hablan muy bien de él.

Luis, el esposo de Elena, pasa mucho tiempo fuera de casa por causa de su trabajo. El es guía turístico por eso tiene que viajar constantemente y además no tiene un horario fijo. Generalmente, él ayuda a Jaime y Miguel con las tareas de la clase de historia porque él es un experto en esta materia.

Appendix B

First semester Spanish questions

After reading the paragraph, **ANSWER** the questions in **SPANISH** and in **ENGLISH**.

1. ¿Cómo se llaman los padres de Miguel y Jaime?
   SPANISH: _____
   ENGLISH: _____

2. ¿Por qué no trabaja Elena fuera de casa?
   SPANISH: _____
   ENGLISH: _____

3. ¿Cómo es Jaime?
   SPANISH: _____
   ENGLISH: _____

4. ¿Por qué Elena tiene que hablar con el profesor de Jaime con frecuencia?
   SPANISH: _____
   ENGLISH: _____

5. ¿De quién está Elena muy orgullosa? ¿Por qué?
   SPANISH: _____
   ENGLISH: _____

6. ¿Por qué tiene que viajar Luis constantemente?
   SPANISH: _____
   ENGLISH: _____

7. Compara las características de Jaime y Miguel.
   SPANISH: _____
   ENGLISH: _____

8. Define "guía turístico".
   SPANISH: _____
   ENGLISH: _____

Appendix C

First semester English questions

After reading the paragraph, **ANSWER** the questions in **ENGLISH** and in **SPANISH**.

1. What are Miguel and Jaime's parents' names?
   ENGLISH: _____
   SPANISH: _____

2. Why does Elena not work outside the home?
   ENGLISH: _____
   SPANISH: _____

3. What is Jaime like?
   ENGLISH: _____
   SPANISH: _____

4. Why does Elena have to frequently speak with Jaime's teacher?
   ENGLISH: _____
   SPANISH: _____

5. Who is Elena proud of? Why?
   ENGLISH: _____
   SPANISH: _____

6. Why does Luis have to constantly travel?
   ENGLISH: _____
   SPANISH: _____

7. Compare Jaime and Miguel's personalities?
   ENGLISH: _____
   SPANISH: _____

8. Define "guía turístico."
   ENGLISH: _____
   SPANISH: _____

Appendix D

Third semester passage

Martín Iglesias[2]

Martín Iglesias tenía una vida próspera en su país, la Argentina; pero decidió ir a España porque era un hombre aventurero y porque pensó que España ofrecía una buena oportunidad para vender los productos de su compañía. Por esta razón fue primero a Madrid y luego a Barcelona.

Martín tenía otro motivo para viajar a España, quería buscar a una hermana de su madre que vivía en Sevilla y con la que había perdido el contacto. Sólo tenía una vieja dirección y el nombre del hospital en que su tía trabajaba. Llegó a la casa de la dirección pero nadie conocía a esa señora. Uno de los vecinos le dio la dirección del hospital. En el hospital Martín conoció a una mujer llamada Rosario.

Rosario era viuda, su marido había muerto hacía tres años, y tenía un hijo de cinco años. Ella era abogada y le gustaba mucho su trabajo.

Aunque Rosario tenía siempre mucho trabajo, ella ayudó a Martín a buscar a la hermana de su madre. Finalmente descubrieron que la tía de Martín había muerto hacía dos años y que los hijos de su tía vivían ahora en el sur de Francia.

Ahora Martín tenía que volver a la Argentina, pero no quería irse sin Rosario porque se había enamorado de ella.

Appendix E

Third semester Spanish questions

After reading the paragraph, **ANSWER** the questions in **SPANISH** and in **ENGLISH**.

1. Dé tres razones de por qué Martín decidió irse a España.
   SPANISH: _____
   ENGLISH: _____

2. ¿Por qué se fue Martín a Madrid y a Barcelona?
   SPANISH: _____
   ENGLISH: _____

3. ¿Por qué se fue Martín a Sevilla?
   SPANISH: _____
   ENGLISH: _____

4. ¿Dónde conoció Martín a Rosario?
   SPANISH: _____
   ENGLISH: _____

5. ¿Cuál es el trabajo de Rosario?
   SPANISH: _____
   ENGLISH: _____

6. ¿Cuál es el trabajo de Martín? Justifique su respuesta.
   SPANISH: _____
   ENGLISH: _____

7. ¿Por qué no pudo Martín encontrar a su tía?
   SPANISH: _____
   ENGLISH: _____

8. ¿Cómo supo Martín la dirección del hospital?
   SPANISH: _____
   ENGLISH: _____

9. Define la palabra "viuda".
   SPANISH: _____
   ENGLISH: _____

Appendix F

Third semester English questions

After reading the paragraph, **ANSWER** the questions in **ENGLISH** and in **SPANISH**.

1. Give three reasons why Martín decided to go to Spain.
   ENGLISH: _____
   SPANISH: _____

2. Why did Martín go to Madrid and Barcelona?
   ENGLISH: _____
   SPANISH: _____

3. Why did Martín go to Seville?
   ENGLISH: _____
   SPANISH: _____

4. Where did Martín meet Rosario?
   ENGLISH: _____
   SPANISH: _____

5. What is Rosario's job?
   ENGLISH: _____
   SPANISH: _____

6. What is Martín's job? Justify your response.
   ENGLISH: _____
   SPANISH: _____

7. Why couldn't Martín find his aunt?
   ENGLISH: _____
   SPANISH: _____

8. How did Martín find out the address to the hospital?
   ENGLISH: _____
   SPANISH: _____

9. Define the word "viuda."
   ENGLISH: _____
   SPANISH: _____